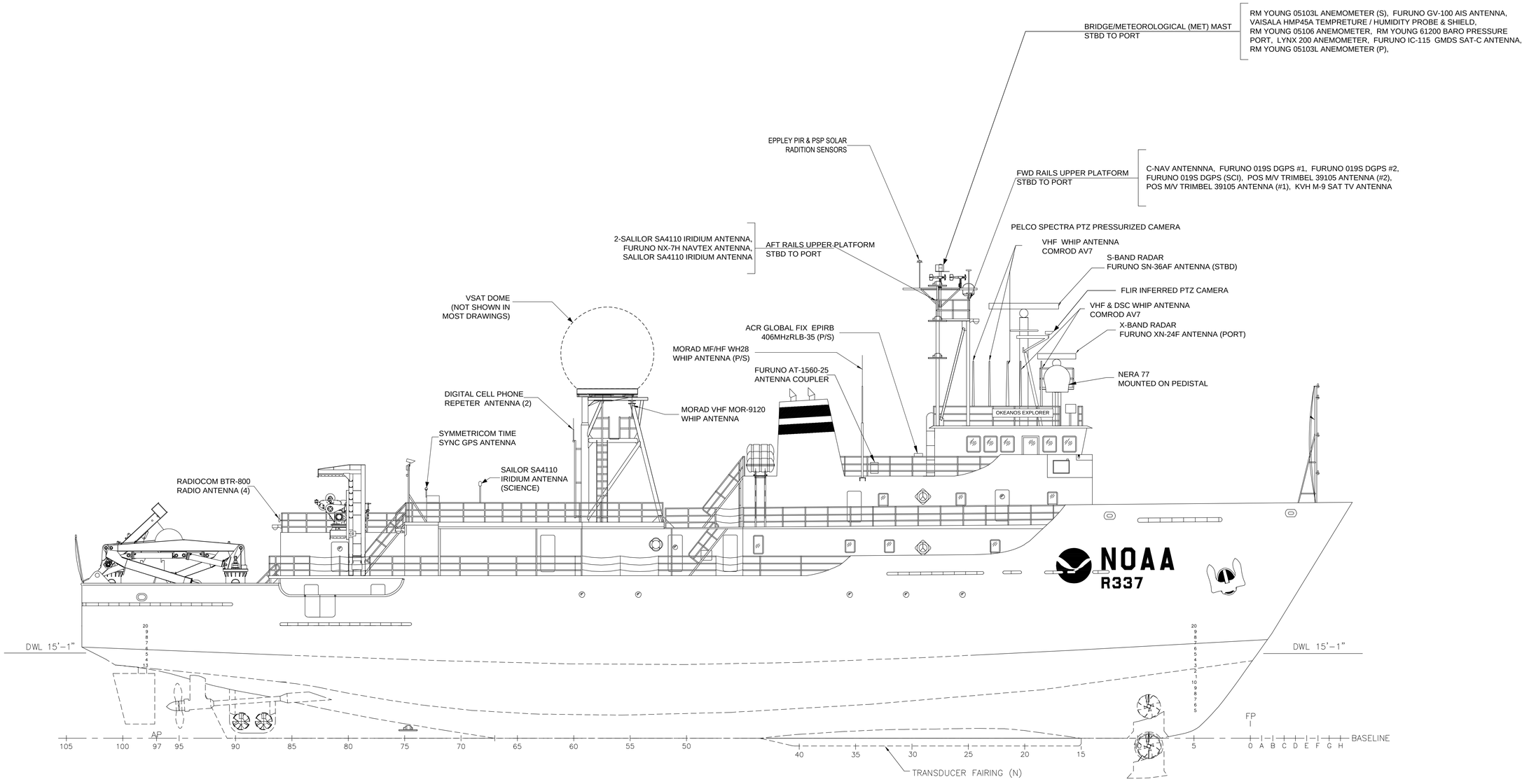
NOAA
R 337



ELEVATION

OUTBOARD PROFILE

ANTENNA ARRANGEMENT - BLOCK DIAGRAM			
NOAA PORT OFFICE - DAVISVILLE 2578 DAVISVILLE ROAD NORTH KINGSTOWN RI 02852		NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NOAA MARINE AND AVIATION OPERATIONS	
NAME	DATE	NOAA SHIP OKEANOS EXPLORER	
PREPARED: RICHARD E CONWAY	8 JUN 15	EXTERNAL ANTENNA ARRANGEMENT	
CHECKED:			
APPROVED:		SIZE / MONTH / YEAR / OKEANOS EXPLORER (IN HOUSE) - DRAWING / REV	
APPROVED FOR NMAO:		F / JUN2015 / ANTENNA FARM / 4	
SCALE: AS NOTED		CAD FILENAME: OKEANOS EXPLORER - ANTENNA_FARM_REV - VSD	SHEET 1 OF 5

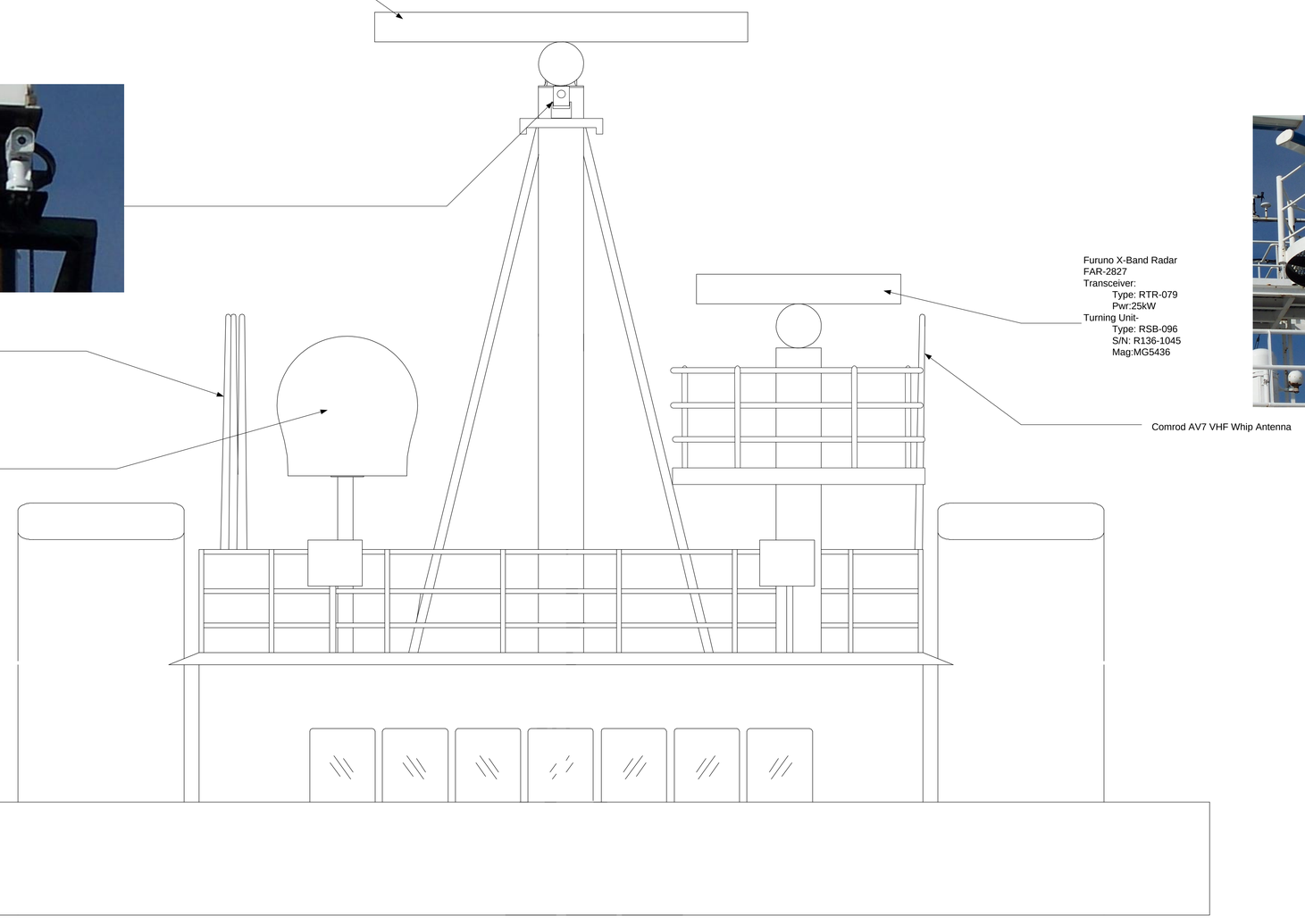
ANTENNA FARM B 1

Furuno S-Band Radar
FAR-2837S
Transceiver:
Type: RTR-080
Pwr:30kW
Turning Unit-
Type: RSB-098
S/N: R138-0784
Mag:MG5223F

FLIR Camera
Navigator II
Inferred PTZ

Comrod AV7 VHF Whip Antennas

Nera F77 Antenna
SPAC-AS-FLEET 77
REV 1.4
S/N: 3080



Furuno X-Band Radar
FAR-2827
Transceiver:
Type: RTR-079
Pwr:25kW
Turning Unit-
Type: RSB-096
S/N: R136-1045
Mag:MG5436

Comrod AV7 VHF Whip Antenna

FLYING BRIDGE

FLYING BRIDGE – LARGE ANTENNAS			
SIZE	MONTH / YEAR	OKEANOS EXPLORER (IN HOUSE) - DRAWING	REV
F	JUN2015	ANTENNA FARM	4
CAD FILENAME: OKEANOS EXPLORER - ANTENNA_FARM_REV - VSD		SHEET 2 OF 5	

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4
2

Furuno DGPS Antenna
Bridge #2 (port)
GP-019S
S/N: 103321

Furuno DGPS Antenna
Bridge #1 (stbd)
GP-019S
S/N:103322

Aero Antenna Technology, Inc (Applanix)
POS/MV Antenna (stbd)
AT1675-540TS-TNCF-000-RG-45-NM-R
S/N: 7082

Aero Antenna Technology, Inc (Applanix)
POS/MV Antenna (port)
AT1675-540TS-TNCF-000-RG-45-NM-R
S/N: 7260

C-Nav GPS Antenna
AT2775-62W-TNCF-000-RG-39-NM
S/N: 6928

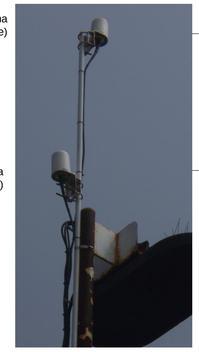
KVH Direct TV Satellite Antenna
TracVision M9
S/N: 110800111

Furuno GPS Antenna
(Rack room)
GP-019S
S/N: 026901

PLANFORM RAILS
FRONT

SAILOR SA4110 Iridium Antenna
(Ship's #2 phone)

SAILOR SA4110 Iridium Antenna
(Ship's #3 phone)



Sailor Iridium Antenna

SA4110
S/N: 8041000

Furuno Navtex Antenna

NX-7H
S/N:014216

PLANFORM RAILS
BACK

Eppley Radiometer Solar Sensor
Precision Spectral Pyranometer (PSP) stbd S/N 36630F3
Precision Inferred Radiometer (PIR) port S/N 36682F3

RM Young Anemometer -
SCS sensor
05106
S/N: 82711

Lynx Analog Anemometer
Model: 200-2206
S/N 71408

Furuno AIS
Combined Antenna Unit
(GPS & VHF)
GV-100
S/N: 012448

Furuno INMARSAT-C
GMDSS Antenna
IC-115
S/N: 024598

RM Young Anemometer -
stbd side bridge
05103L
S/N: 76412

RM Young Anemometer -
port side bridge
05103L
S/N: 76411

Vaisala Temperature / Humidity
Probe with Solar Shield
HMP155A
S/N

RM Young Barometer Pressure Port
Model 61200
S/N: na

MAST

METEOROLOGICAL PLATFORM			
SIZE	MONTH / YEAR	OKEANOS EXPLORER (IN HOUSE) - DRAWING	REV
F	JUN2015	ANTENNA FARM	4
CAD FILENAME: OKEANOS EXPLORER - ANTENNA_FARM_REV - VSD		SHEET 3 OF 5	

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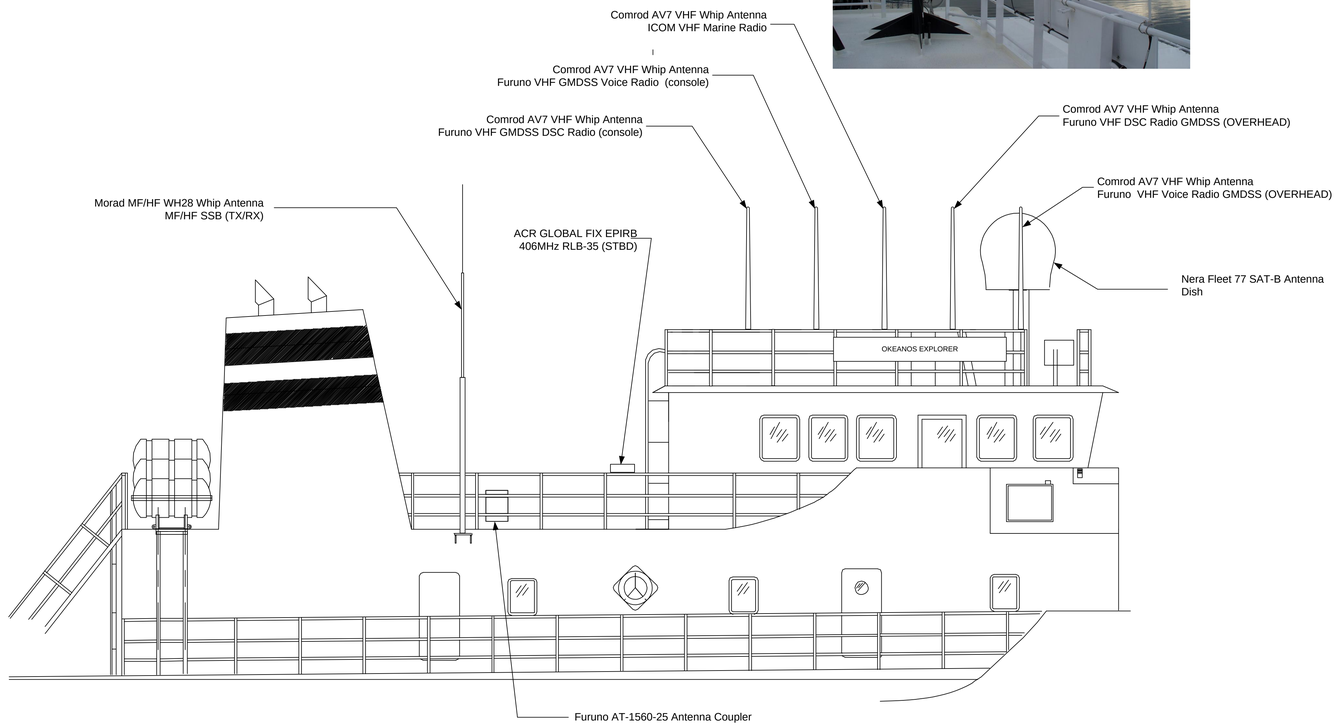
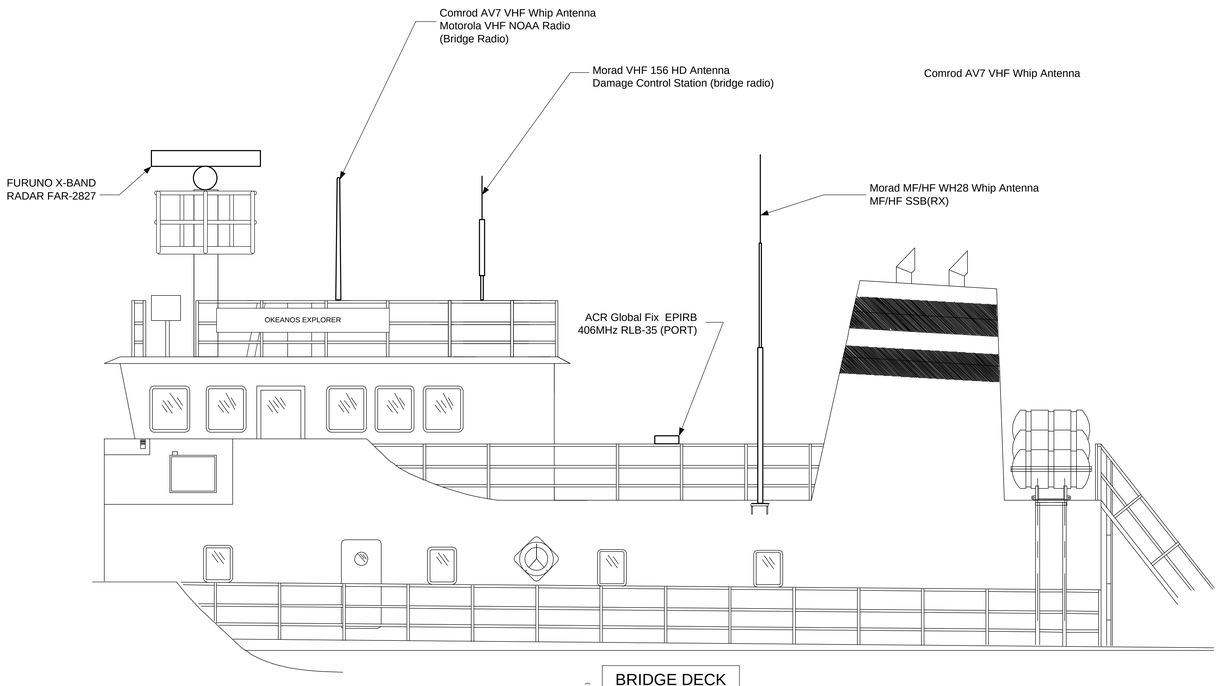
3


Comrod AV7 VHF Whip Antenna
ICOM VHF Marine Radio
Comrod AV7 VHF Whip Antenna
Furuno VHF GMDSS Voice Radio (console)
Comrod AV7 VHF Whip Antenna
Furuno VHF GMDSS DSC Radio (console)
Comrod AV7 VHF Whip Antenna
Furuno VHF DSC Radio GMDSS (OVERHEAD)
Comrod AV7 VHF Whip Antenna
Furuno VHF Voice Radio GMDSS (OVERHEAD)
Morad MF/HF WH28 Whip Antenna
MF/HF SSB (TX/RX)
ACR GLOBAL FIX EPIRB
406MHz RLB-35 (STBD)
Nera Fleet 77 SAT-B Antenna
Dish
OKEANOS EXPLORER
Furuno AT-1560-25 Antenna Coupler

BRIDGE DECK

STBD



BRIDGE DECK

PORT

BRIDGE – RF ANTENNAS

SIZE	MONTH / YEAR	OKEANOS EXPLORER (IN HOUSE) - DRAWING	REV
F	JUN2015	ANTENNA FARM	4

CAD FILENAME: OKEANOS EXPLORER - ANTENNA FARM_REV -.VSD

SHEET 4 OF 5

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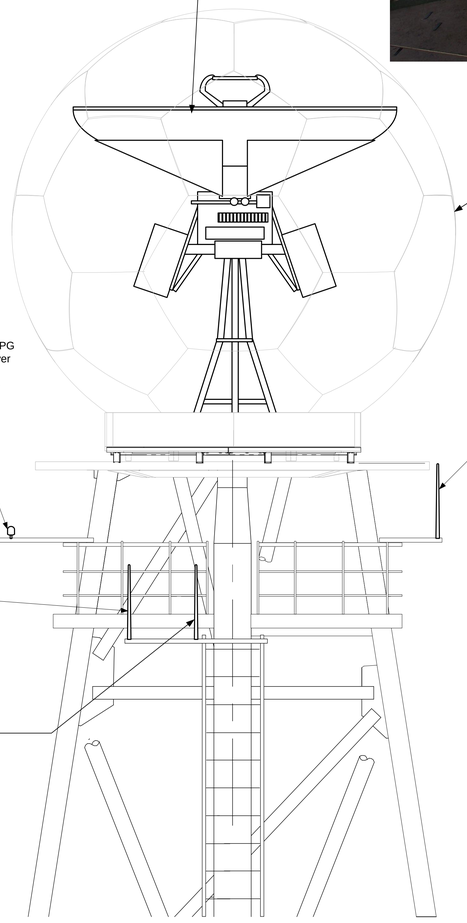
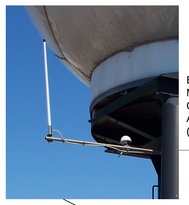
(inside) SEATEL 3.7m VSAT
(Very Small Aperture
Terminal) 14600



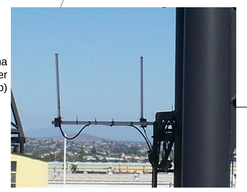
VSAT 4.9m (16FT)
Fiberglass Dome with Riser



Tellular GSM
Cellular Antenna

Evertz
Master Clock/SPG
GPS Time Server
Antenna
(Telepresence)

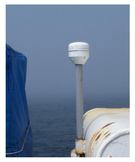
Morad VHF 156 HD Antenna
EOS VHF NOAA Radio



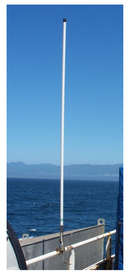
Digital Antenna
Cell Phone Repeater
(Dry Lab)

Digital Antenna
Cell Phone Repeater
(Main Deck)

VSAT MAST



BOAT DECK

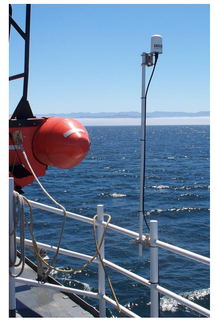


Symmetricom Time
Sync GPS
Antenna

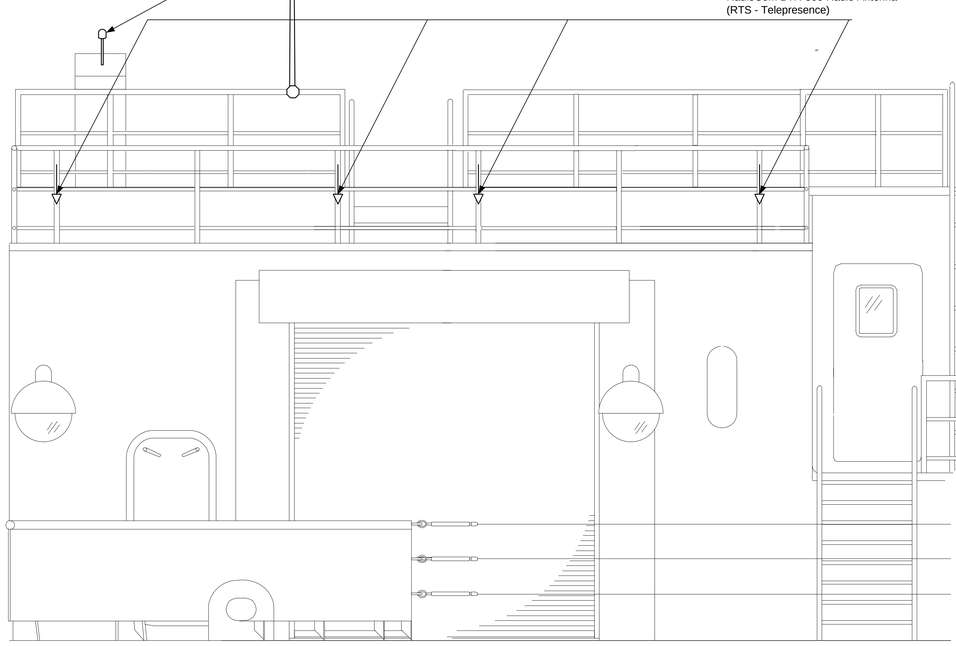
Shakespeare VHF Antenna
Motorola VHF NOAA Radio
(ROV Control Room)

RadioCom BTR-800 Radio Antenna
(RTS - Telepresence)

SAILOR SA4110 Iridium Antenna
(Science)



BOAT DECK



ROV GARAGE

VSAT MAST, BOAT DECK & ROV GARAGE			
SIZE	MONTH / YEAR	OKEANOS EXPLORER (IN HOUSE) - DRAWING	REV
F	JUN2015	ANTENNA FARM	4
CAD FILENAME: OKEANOS EXPLORER - ANTENNA_FARM_REV - VSD		SHEET 5 OF 5	

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Notes:

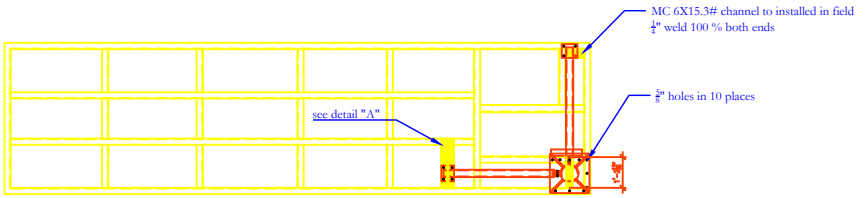
1. Prepare all new and disturbed surfaces to an SP3 degree of preparation.
2. Prime with 2 coats of High Build Epoxy at 5.0 to 6.0 mils/coat, red then grey.
3. Topcoat with 2.0 to 3.0 mils of a MIL-PRF-25635 Silicone Alkyd, Type II CL white paint to match existing."

Bill of Materials

1- 20' of 3" pipe Schedule 80 6061-T6 Aluminum
2- 10' of 8" pipe Schedule 80 6061-T6 Aluminum
3- 1" x 2' x 4' Plate 6061-T6 Aluminum
4- ¾" x 2' x 4' Plate 6061-T6 Aluminum
5- 8' MC 6 X 15.3# Channel
6- (52) 5/8" plastic washers
7- (52) 5/8" SS washers
8- (26) 5/8" ss Nylok nuts
9- (18) 5/8" x 2" SS bolts
10- (8) 5/8" x 3.5" SS bolts
11- (8) plastic Sleeves for 5/8" bolts 2.25" long
12- (18) Plastic sleeves for 5/8" bolts 1.25" long

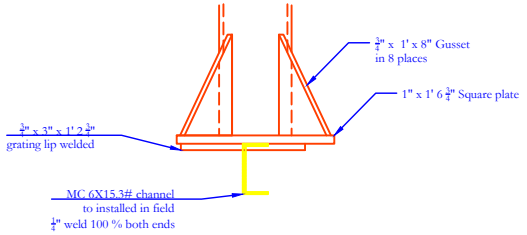
TV Satellite Mount
Okeanos

Drawn by:	Date:	Checked by:	Date:	Drawing No:	REV
ECJ	08/07/19			30556-001-19-300-1	A



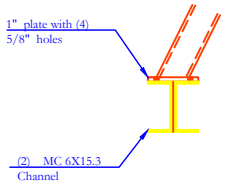
Forward looking
Aft view

Satellite top
mount plate

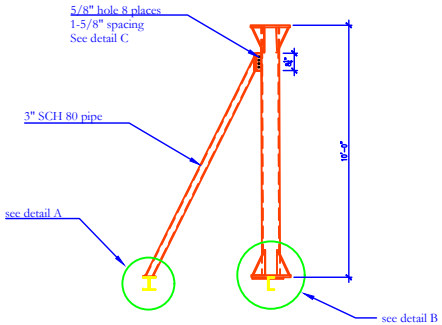

¾" x 1' x 8" Gusset
in 8 places
1" x 1' 6 ¼" Square plate
¾" x 3" x 1' 2 ¾"
grating lip welded
MC 6X15.3# channel
to installed in field
¼" weld 100 % both ends

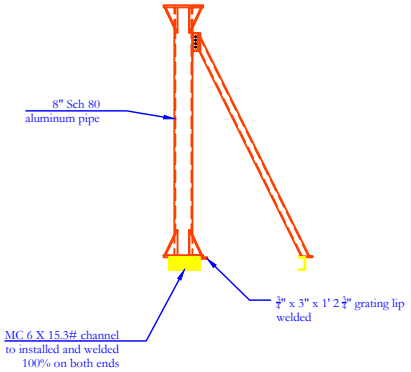
Detail "B"
Scale 4:1

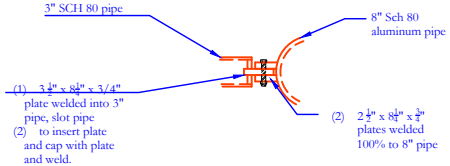
Port side view



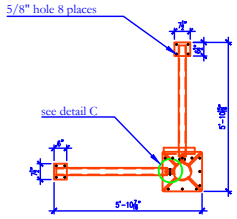
Detail "A"
Scale 4:1






3" SCH 80 pipe
8" Sch 80
aluminum pipe
(1) 3 ¾" x 8 ¾" x 3/4"
plate welded into 3"
pipe, slot pipe
(2) to insert plate
and cap with plate
and weld.
(2) 2 ½" x 8 ¾" x ¾"
plates welded
100% to 8" pipe

Two SCH 80
bracing
Detail "C"
Scale 4:1



		TV Satellite Mount Okeanos			
Drawn by:	Date:	Checked by:	Date:	Drawing No:	REV
ECJ	08/07/19			30556-001-19-300-2	A